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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,197

01/30/2006

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SP03-100

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02/13/2009

EXAMINER

WYSZOMIERSKI, GEORGE P

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

02/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,197	Applicant(s) ABBOTT III ET AL.	
	Examiner George P. Wyszomierski	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The amendment filed November 17, 2008 has been entered. Claims 1-12 are pending in this application.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. (U.S. Patent 5,514,347).

Ohashi discloses forming a honeycomb structure by sintering an extruded structure of powder metal. Whatever structure is used for extrusion purposes by Ohashi is taken by the examiner to be equivalent to the claimed "honeycomb extrusion die". The structure so formed comprises an interconnected wall structure which forms channels as defined in claim 1. Ohashi column 6, lines 59-61 indicates that the holes in the honeycomb structure should be arranged at a variety of angles, in accord with what is recited in claim 2. The structure formed in the Ohashi disclosure can be defined as an "extruded metal honeycomb" as recited in new claim 12.

Ohashi does not specify that the starting material is initially softened, or a final step of cooling below the softening temperature as required by the instant claims. However,

a) It would have been considered an obvious expedient to one of ordinary skill in the art to soften metal prior to performing an extrusion process with the metal, i.e. to ensure proper deformation of the metal with a relative absence of cracking or other negative consequences of a severe mechanical process such as extrusion.

b) With regard to cooling, the examiner submits that any practical application of an extruded metal would require that one cool the extrudate below the softening temperature after extrusion, in order to form a rigid mechanical structure. This would clearly be required if one intended to use the extrudate in a catalytic converter, as done by Ohashi. Thus, a prima facie case of obviousness is established between the process of Ohashi and the presently claimed invention.

4. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohashi et al. in view of Peters (U.S. Patent 4,574,459).

The Ohashi patent, discussed supra, refers to coating the holes in the honeycomb structure of the prior art with a material such as Al_2O_3 (alumina); see Ohashi column 9, lines 41-67. Ohashi does not refer to this coating as "release coatings or lubricants" as recited in claim 3, and does not disclose vapor depositing such a coating. Peters indicates that it was known in the art, at the time of the invention, to coat holes in a honeycomb structure by vapor depositing material such as aluminum oxide and/or titanium carbonitride on the holes. Further, Peters column 3, lines 13-14 states that "a sequence of superposed layers of different compositions may be deposited" in this manner, thereby rendering a coating that includes the combination of TiCN and alumina as recited in claim 5 within the purview of the prior art. This disclosure of Peters, when taken with the honeycomb structure extrusion process as disclosed by Ohashi et al., would have rendered the process as claimed obvious to one of ordinary skill in the art.

5. In a response filed November 17, 2008, Applicant alleges that the recitation of a "bulk metal" feed charge in the process of instant claim 1 distinguishes the claimed

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process from that of Ohashi, which extrudes powders. Applicant's arguments have been carefully considered, but are not persuasive of patentability because

a) nothing in the present specification or claims defines the term "bulk metal" in such a way to distinguish processes employing same from processes employing metal powder, and

b) paragraph [0025] of the present specification suggests that the use of metal powders would fall within the scope of the process as presently claimed.

The examiner accepts Applicant's explanation regarding the units recited in instant claim 3 and thus the rejection made in the previous Office Action under 35 USC 112 is withdrawn.

6. Claims 6-11 are allowable over the prior art of record. The prior art does not disclose or suggest a structure as claimed and including a metal body with interconnecting channel walls, the walls being of a thickness of 0.001-0.1 inches from the first end face to the second end face of the body.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/George Wyszomierski/
Primary Examiner
Art Unit 1793

GPW
February 10, 2009